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NOTES FROM THEATRES OF WAR

No. 8: FAR EAST, December, 1941/May, 1942

No. 9: MADAGASCAR, May, 1942

1942

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The Chief of the Imperial General Staff

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NOTES FROM THEATRES OF WAR

FAR EAST: DECEMBER, 1941/MAY, 1942

1. Introduction

The following notes have been compiled from reports received from Singapore and Burma. Reports from Singapore are still incomplete and give an inadequate picture of the final defence of the island. A complete and fair account can become available only when the war is ended and those who were captured are able to give their evidence. A summary of the campaign in Burma is given at Appendix A.

With the loss of Singapore the British forces were confronted with the necessity of carrying out a long delaying action in order to cover the mobilization of Imperial and Allied resources in the East. In spite of shortage of equipment and reserves, in spite of lack of adequate air support, and in face of the treachery of many of the local inhabitants, our army in Burma never lost its cohesion and succeeded in preventing the Japanese from reaching the frontiers of India before the monsoon.

Many of the lessons which stand out from the story of these campaigns are of general application. The need for discipline and for physical and mental fitness—in fact, for the solid long-established military virtues—is as real in Europe or Africa as it was in Singapore. Other lessons are of more limited application; tactical methods and the suitability of certain types of equipment, as brought out in these notes, are applicable only to jungle country, of which Malaya and the greater part of Burma are composed. Care must therefore be observed in drawing general conclusions.

The tactical methods contained in Military Training Pamphlet No. 52, "Forest, Bush, and Jungle Warfare against a Modern Enemy, 1942," are based largely on the experience gained in fighting the Japanese; the pamphlet will therefore repay careful study.

2. Morale and discipline

1. *General.*—Reports from Malaya show that, in some units, saluting, standing to attention, and the use of "sir" had been allowed by young and inexperienced officers to fall into disuse. Experience proved that units, in which discipline had been neglected in this way, were unable to stand up to the strain of the campaign.

The morale of the 18th Division on its arrival in Singapore was high; although the strange climate and country and the enemy's methods engendered a feeling of bewilderment, the troops were always prepared to take on any number of Japanese.

There is no doubt that many troops in Malaya who were continuously withdrawing instead of, as they had hoped, being on the offensive, were disheartened by their defensive role. Cultivation of the offensive spirit is essential, but there is a danger of serious reaction if troops are not taught that defensive operations are sometimes necessary as a result of events elsewhere. This depression was aggravated by the climate and the oppressive jungle environment to which many troops had had no opportunity of becoming acclimatized, and depression often turned to apathy. It is impossible to over-estimate the importance of fully preparing the troops for the conditions in which they are going to fight.

2. *Japanese quality.*—Many of the Japanese troops in Malaya were among the best that the enemy could produce. Experience has shown that many Japanese units are not up to the same high standard. A report from Burma states that they were inclined to "go to ground" after taking a knock and allow themselves to be killed; they would place one hand on the forehead and cower against a bush or other cover.

A description from the Philippines gives a further example. American troops carried out a strong attack after detailed reconnaissance of the flanks and rear of the Japanese force. Grenades and automatic fire caused the enemy troops to break formation, throw their rifles aside, and flee. In the confusion the Japanese fired mortars at their own troops.

3. Training

1. *General.*—Japanese troops employed in Malaya and Burma had been carefully trained and prepared for the campaign which they were to fight. Their study of the minor tactics suitable for the country, and of the means of bringing jungle warfare methods up to date, had been intensive.

On the other hand, many of our own troops had been training for a different type of warfare and, when unexpectedly sent to the Far East, were naturally at a disadvantage from the beginning. Regarding those troops who were already in the Far East, the lesson to be drawn from events is that prolonged peaceful periods and the danger of sickness from climatic conditions must not be allowed to interfere with realistic training in the geographical and climatic conditions in which they will have to fight. Exercises must be prolonged sufficiently to bring out administrative problems and to teach troops how to combat real fatigue and stand the strain of war.

It is worth mentioning here that the Germans found great difficulty in France in overcoming Senegalese troops in forest fighting, for which the natives' training had made them eminently suitable. A German account of an action by their 118 Infantry Regiment at Sommauthe on 23rd May, 1940, states that "the defenders refused to surrender, even when encircled . . . retained their aggressive spirit even after we had cut them off from their companies for days." The account also contains references to the difficulty of keeping direction and of bringing support weapons into action, and to the reduced value of artillery owing to the difficulty of finding O.Ps. "The men's morale was considerably shaken by the grenades thrown by these cunning negro stalkers. The enemy seemed to be everywhere, but we could not pin him down." The account, in fact, bears out the necessity for training in appropriate conditions.

2. *Speed.*—In Malaya the Japanese set a very fast tempo to the war, much greater than that to which our forces had been accustomed. The vital necessity of speed in every operation of war had often been overlooked; and as a result troops were continually surprised and cut off. Where forethought and speed were combined, plans, though hastily conceived, could be put into effect and surprise and disorder avoided.

Accounts of the operations stress the importance of early reconnaissance, warning orders, and quick decisions. Units and sub-units must think ahead and must plan for any emergency and everyone from the infantry section commander upwards must realize the necessity of being one move ahead of the enemy. Where this precaution was neglected, harried and tired troops resulted.

That speed in operations is equally vital whether in Europe, Africa, or Asia and that it can be acquired only by rigorous training has continually been emphasized.

3. *Flexibility.*—In jungle warfare tremendous advantages accrue to the attacker; but to reap the benefits to the full the attacker must be flexible in his movements and must be based on a flexible administrative system. Experience in Malaya showed that roads are tactical features of the first importance in jungle warfare, but troops must be prepared and trained to work away from roads for long periods in order to gain and retain control over them; to assist them, suitable transport will be required; jeeps, animal transport carts, handcarts, mules, bullocks, and native carriers may all be of value in making forward troops independent.

The army in Malaya was road-bound; too much time had been spent on road moves, and far too little on the technique of jungle warfare. These faults in training were sometimes unavoidable; the armoured brigade in Burma, and many of the Indian units in Malaya and Burma, had been trained originally for operation in the open spaces of Libya or Iraq, where mechanization was one of the means to victory. In Malaya the climate had discouraged long marches and manhandling of loads; men who were physically soft would tend to keep their transport too far forward and would avoid erecting anti-tank obstacles which might keep their vehicles at a distance.

The Japanese exploited our tendency to be road-bound by continually erecting road blocks behind our forward troops, and thereby compelled us to engage in stiff actions, not always successful, to free transport, equipment and wounded.

4. *Physical fitness.*—A document captured from the Japanese described us as "effeminate, fond of drinking and dancing, and, as fighters, no match for the Chinese soldier." The object of the document was, of course, to give confidence to the Japanese troops; nevertheless it contained a germ of truth.

Physical fitness and mental elasticity deteriorate rapidly in hot damp countries like Malaya and Burma unless active steps are taken to maintain body and brain in good condition. In this respect the training of the Argyll and Sutherland Highlanders was noteworthy; together with that of some Indian Army units, their training was designed to toughen them physically and succeeded admirably in doing so. The Argylls demonstrated repeatedly the innate superiority of the trained British soldier over even the best troops that the Japanese could produce.

The 18th Division landed in Singapore after a long sea voyage. After months at sea in the confined space of troopships, troops were far from fighting fit and had no opportunity to become acclimatized or fit before being involved in the battle.

The human body can be trained to work efficiently for up to three days on end with only a very few hours' sleep and an emergency ration. Troops were not trained up to this standard, with the result that after a day and a half without food or sleep many were almost useless. The ability to live on the country for days on end without loss of efficiency requires a high standard of training and man-management. A report from Malaya states that a surprisingly large number of our men could neither swim nor ride bicycles.

5. *Basic training.*—Coast regiments, anti-aircraft regiments, and field companies in Malaya were all required to fight as infantry. In addition, coast defence and anti-aircraft batteries often had to defend themselves. Every campaign has taught the same lesson—that all who wear uniform should be capable of defending themselves and, to a certain extent, of fighting as infantry.

There is evidence that soldiers of technical arms and services were not always convinced of the necessity of learning how to use their weapons and how to take their stand in an emergency as infantry. In the Japanese army the infantry is the senior and basic arm, and all soldiers, irrespective of their arm or service, are thoroughly trained as infantrymen. Although the standard of musketry is low, the fact that all soldiers are confident in the handling and use of at least one weapon is of great value. Offensive spirit and pride of service are greatly encouraged by the widespread possession of weapons and instruction in their use.

6. *Individual training.*—Jungle warfare requires a very high degree of skill which can be reached only as the result of a considerable period of highly specialized training. One report states that three months' training in jungle warfare were necessary before a man ceased to be a liability: only after six months were men acclimatized and effective.

Skill in minor tactics was proved to be vital to success in jungle warfare; to be able to dominate the enemy in minor tactics, troops must learn to live and operate in the jungle, to be masters of jungle navigation, and to have complete confidence in their ability to beat the Japanese. On account of insufficient training in map reading, large numbers of our troops lost their way and were captured.

A report from Malaya refers to the excessive reliance which was placed upon platoon and section commanders; infantry sections were often lost after the section commanders had become casualties. This point emphasizes once again the necessity of training every man to be self-reliant in living and operating in the jungle.

A subject which was often neglected in Malaya, but which requires attention, is the instruction of troops in the customs, appearance, and language of the local inhabitants and in the resources and local geography of the country where they may be required to operate. Some difficulty was experienced in Malaya by the lack of a common medium of speech between all units of a command.

7. *Weapon training.*—In many units in Malaya fire discipline was poor. Unaccustomed noises, the Japanese cracker gun, and the exaggerated sound of enemy fire, apparently coming from any and every part of the jungle, continually resulted in wild firing of rifles and tommy guns; the effect of this uncontrolled firing was to give away the extent of our positions to the enemy. To prevent waste of ammunition in this way some units removed the bulk of the S.A.A. from their men at night. This precaution should be unnecessary if troops are taught to conserve ammunition and that every round fired must be fired to kill.

On many occasions officers and men went into action with very little practical experience of the weapons with which they were armed. Since training allotments are limited by shortage of ammunition, careful checking is essential to ensure that everyone has had at least some experience of firing his personal weapon.

The importance and effectiveness of rifle and L.M.G. fire against low-flying aircraft was not generally realized. The attitude of mind of troops in this respect was often purely defensive; training must aim at instilling the determination to be offensive.

8. *March discipline.*—Operations, both in Malaya and Burma, bore out the importance of a high standard of driving and road discipline. Where camouflage and concealment of vehicles were neglected, and the orders on speed and density ignored, the enemy made full use of his air superiority to exploit our shortcomings. Further, it was found that the narrow roads in both theatres made accidents almost inevitable unless M.T. discipline was of the best.

4. Offensive

1. *General.*—The vigorous advance and offensive spirit of the Japanese made great headway against our troops in Malaya. We were unprepared for the speed of the enemy's advance and troops were bewildered at finding themselves repeatedly encircled. During the campaign in Burma, however, we had gained much experience, and though greatly outnumbered were frequently able to retaliate with considerable effect. At the end of April an attack was carried out at Kyankse in Burma by an infantry brigade supported by a battalion of light tanks. 500 Japanese were killed in this operation; our casualties were three killed and seven wounded. At Martaban a company of the K.O.Y.L.I. came to close quarters with a small Japanese force; the enemy fled, throwing away their weapons.

In jungle warfare the attacker has many advantages; he can select his objective at will; he can move towards it unseen, and can surprise the defender, who is tempted to scatter his force to guard all the approaches. To skilled troops the whole jungle is an area of approach.

2. *Japanese methods.*—The Japanese success in the early part of the Malayan campaign was based on the realization that the road was a feature of vital tactical importance and that control of it could be secured by an endless succession of outflanking movements, each of them being carried out to a depth of several miles behind our forward troops. Once the outflanking movement had been completed, road blocks were established to hamper our withdrawal. Intelligent study of the map may show defiles or vital points on the L. of C. at which the enemy is likely to aim his encircling movements.

To assist their advance the Japanese used every possible device and stratagem. Advanced patrols were frequently dressed in civilian clothes; on one occasion attacking troops were reported to be dressed in white shirts and shorts and Australian hats, while their leaders were wearing armlets. Their fighting patrols moved very quietly, whereas reconnaissance patrols were purposely noisy, with the object of drawing fire and locating our positions.

A report from Burma states that on some occasions the Japanese moved by bounds from village to village protected by a screen of fifth columnists and local inhabitants. This screen was sometimes up to two miles in depth and was of great value to the enemy in preventing us from effecting an ambush. British troops were often loth to shoot at what appeared to be civilians. The flood of refugees in Burma was fully exploited; it served to obstruct our communications and to assist the Japanese in passing troops disguised as local inhabitants behind our positions, weapons being concealed in bullock carts or other vehicles. Our troops were never suspicious enough.

The Japanese have a proportion of " shock " troops who are far better trained than others ; these picked troops were particularly successful in outflanking our positions and establishing road blocks in rear. The exaggerated estimate of Japanese efficiency, which at one time became so prevalent as to be damaging to the morale of our own troops, was largely based on the skill of these picked men. It is reported that the bulk of the Japanese troops in Malaya, though hardy and well trained, fell far short of the standard of their shock troops.

3. *Infiltration.*—Throughout the campaigns in the Far East the Japanese proved themselves to be masters of infiltration tactics. Their leading troops hardly ever moved by road but were guided by local inhabitants, either along tracks or across country, accompanied, where possible, by pack mules and bullock carts. They made use of tracks little known, difficult, and often not marked on the maps. All the operations showed the importance of making full use of local guides and of interpreters.

4. *Road blocks.*—Our communications were being constantly threatened and severed by Japanese infiltration methods. In Burma the road running north from Prome was cut ; anti-tank guns were brought up and, aided by air support, held up our M.T. columns ; much congestion was caused. An attack was launched by two squadrons of light tanks and one infantry battalion ; it failed because our infantry proved insufficient in numbers for an operation carried out in close country. On the following day a complete infantry brigade was used with much greater effect, but proved unable to clear the enemy far from the road. This operation was more elaborate than those normally carried out by the Japanese ; but it gives an indication of the disorganization that may be occasioned if the enemy are permitted to establish and reinforce themselves astride our communications in rear of our forward troops.

Road blocks were normally well sited round a bend or in a wood or defile where it was impossible to move vehicles off the road, to site artillery for direct fire, or to find O.Ps. They were set up five or six miles in rear of our positions by parties who made wide detours, led by the usual local guides, whose knowledge of the ground was of great assistance in the selection of suitable sites. Road blocks were rapidly erected and were often of simple construction ; obstacles were covered at close range by concealed mortars and guns, often 70-mm., which, in turn, were protected by a ring of light automatics.

Mobile road patrols are necessary to prevent establishment of these blocks. Tank patrols were formed, but proved to be most uneconomical, apart from the fact that the noise of the aero engines fitted to the American tanks precluded any chance of surprise. Armoured cars, being silent, are eminently suitable.

We were usually able to clear the enemy road blocks but, had they been covered by anti-tank guns, frontal attacks by our tanks would have proved suicidal and we should have then been more dependent on infantry attacks.

It was found that when our attacks on road block parties were pressed home, the defenders frequently faded away into the jungle, only to return some hours later to the same spot. The remedy is to retain a small force at the site of the block to deal with the enemy on their return.

5. *Attack.*—Japanese operations were based on careful reconnaissance ; their air superiority and the elaborate fifth column were of great value

in this respect ; at the beginning of the Burma campaign they used cavalry. There are several reports of Japanese reconnaissance parties deliberately exposing themselves in order to draw fire and so discover the extent of our positions.

Simplicity was the keynote of Japanese tactics ; their operations in Burma were stereotyped, and plans, once made, were followed rigidly. This lack of flexibility often resulted in a failure to follow up their successes sufficiently rapidly and compared unfavourably with our own rapid pursuit of the Italians in Eritrea, where we took great risks which proved amply justified. Japanese lack of imagination frequently resulted in failure to search with gun and mortar fire ; they were content to shell only those defences which they had located with certainty. Our answer, of course, lies in the use of alternative positions.

A report from Burma states that the Japanese rarely moved by day. Attacks were usually launched at dawn, troops being led forward in small detachments during the night. Frontal attacks were often poorly carried out and were easy to repulse so long as the defending troops stood their ground. Much use was made well forward of 81-mm. and 90-mm. mortars ; fire was accurate and the loud explosions produced had a definite moral effect, an effect on which the Japanese place great reliance, because they themselves dislike noise.

At Kawkareik, in Burma, Japanese attacks were preceded by heavy dive bombing ; their troops attacked in great strength and, although mown down, continued the advance by sheer weight of numbers. Frontal attacks were sometimes made down a road, the assault troops being preceded by cyclists often dressed in civilian clothes.

In Malaya, enemy " blitz " parties were used to clear roads of our defences and obstacles, and to create confusion in our rear. Parties, often consisting of from three to five tanks, were used in waves ; the first party engaged troops and vehicles encountered on the road, while subsequent parties halted and dealt with any of our troops on the flanks. Firing was erratic and our casualties were rarely severe.

Towards the end of the campaign our troops were becoming familiar with, and were learning to counter, Japanese methods. Experience shows that we must avoid adopting any form of set attack. In thick country, with its poor visibility, an attack has to be conducted much on the lines of a night attack ; plans must be very simple, and objectives limited. Every man must know as much of the plan as concerns his own sub-unit or detachment.

Attacks which involve the converging movement of two or more forces on a timed programme, which are always difficult operations under the most favourable conditions, should be avoided. Unless the forces involved are small, are highly trained in jungle movement, and, moreover, either know the country over which they are moving, or, alternatively, can be provided with reliable guides, they have little chance of success. There were several instances in Burma where troops detailed for a turning movement either lost their way, or arrived before the objective too late to be of any use.

Our own " blitz " parties proved most successful in Burma. They advanced in four lines. Men in the leading line carried tommy guns and L.M.Gs., firing from the hip, the second line carried grenades, rifles, and bayonets, while the third and fourth lines carried ammunition. The fire power and noise produced by these parties had a great moral effect

on the Japanese, who are reported to have dispersed as soon as the grenades began to reach them. This is a good way of exploiting the Japanese fear of warlike noises.

5. Defence

1. *General.*—Japanese defence is described as poor, although they showed considerable skill in putting villages or nodal points into a state of defence, their use of buildings and natural cover to conceal weapons being outstanding. Japanese troops on the defensive frequently held their fire until our attacking troops were at very close range; as a result our troops suffered severe casualties. We have, however, very little material on which to base a study of Japanese defensive methods, since they were, generally speaking, on the offensive throughout.

All reports emphasize that the first requirements of defence in close country are mobility and aggressiveness. It is essential to patrol widely and boldly to gain contact and to harass the enemy by mobile columns. Contact once gained must be maintained. Small forward detachments must not remain long in one location where they may be the object of surprise attack; patrols will vary their routes to avoid being ambushed. In defended localities a high standard of alertness is essential in order to avoid being surprised. Alternative positions are essential and may assist in inducing the enemy to bomb positions which are unoccupied.

Operations have shown that our inability, through lack of numbers, to maintain adequate reserves in forward areas, available for rapid offensive action, was a great handicap. Shortage of infantry in Burma practically ruled out the possibility of providing reliefs for troops in forward areas.

In jungle country high ground has been found to have a greatly reduced tactical value; frequently nothing more than the tops of trees can be seen. Positions on low ground were often preferred as being more difficult for the enemy to locate.

It was found to be dangerous to site mortars and L.M.Gs. on the edges of clearings at night; they must be pulled back. The Japanese had an unpleasant habit of bringing down accurate fire, without preparation in daylight, on weapons sited in such forward edges; the targets were indicated by patrols using converging fire with red tracer.

Liaison by junior commanders with troops on their flanks is always necessary in any type of country. It appears that in jungle, owing to difficulties of communications, it is very liable to be neglected. In the Far East, this neglect was particularly noticeable between neighbouring troops of different arms.

2. *Linear defence.*—The danger of attempting to hold definite lines on the ground with inadequate strength has been repeatedly emphasized in reports. In Malaya our troops fell back from one line to another; Jitra, Cuma, and Muar were held and abandoned in turn, and at each position large numbers of troops were cut off and defeat in detail resulted.

Examples taken from the Burma campaign give an idea of the areas which troops were required to hold. In the area Martaban—Thaton—Paan one brigade alone was responsible for the defence of an area with a perimeter of 75 miles. In addition to 30 miles of river front, this brigade had the further liability of having to repel attacks from the coast. Battalion localities in this area were up to 30 miles apart. A second brigade was responsible for an even larger area, but in this case approaches to the area were more difficult.

There can be no question of covering all the ground; strong, self-contained localities must be held to cover the most important lines of approach, and as strong a force as possible must be kept in hand for counter-attack. In spite of being responsible for a very large area, the second brigade quoted above managed to retain one and a half battalions as a mobile column for counter-attack. Later in the campaign it was often found preferable to send out company columns from each battalion; columns were equipped as lightly as possible and carried three days' supplies.

3. *Anti-tank.*—The enemy's use of tanks in Malaya was an example of tactical surprise. Our appreciation led us to believe that the few roads and the dense country precluded the use of tanks and, accordingly, little provision was made for anti-tank defence. Tanks were, however, used by the Japanese with very great effect down the roads; they were used by day and by night and rarely left the roads.

Carriers were often used by us as mobile armoured forts. Protection against anti-tank weapons was provided by infantry, while they, in turn, were protected by the carriers against L.M.Gs. It was found that some advantage was gained in the jungle by firing L.M.Gs. from the carriers, thus making use of the vehicle's height. Carrier crews proved to be very vulnerable to enemy ambush parties and suffered many casualties from rifle fire and grenades from individual Japanese soldiers lodged in the trees.

Carriers were sometimes used in ambushes against small parties of Japanese troops. They proved to be too noisy to obtain surprise. Armoured cars, on the other hand, were invaluable, although difficult to manœuvre on narrow roads.

4. *Fields of fire.*—All fighting in Malaya showed that the defenders in close country are greatly handicapped by poor fields of fire and by the abundance of covered approaches. The Japanese were adept at creeping up to our positions by night; to counter this move it was essential to clear fields of fire. Clearing should be carefully controlled and should consist of "thinning" rather than cutting down the bush.

The difficulty of guarding against surprise was one more illustration of the uselessness of purely static defence measures and of the necessity of counter-attack whenever possible.

5. *Counter-attack.*—The Japanese nearly always put in two encircling attacks, the first on a battalion level to a depth of about 1,000 yds., the second on a regimental (brigade) level to a depth of about 5 miles. Our positions were usually strung out along a road in depth from front to rear; thus the maintenance of a mobile reserve held ready to strike enveloping enemy columns in the flank proved to be of great importance.

Deliberate counter-attacks frequently failed on account of the extreme fluidity of jungle warfare. It was proved that it is the immediate counter-attack which counts in such conditions, and that it is of paramount importance that forward units should have such attacks laid on and rehearsed as a drill. In order that attacks may be laid on in this way it is necessary to create the situation for the counter-attack. Thus the existing situation may have to be sacrificed in order to draw the enemy into an area in which a counter-attack has been prepared before his arrival. When the direction of a future enemy counter-attack is apparent, it may prove possible to ambush the attacking troops, as was successfully

done by the Japanese against a force of our troops which had put in a counter-attack to relieve a company of Gurkhas.

In close country a most powerful counter-attack weapon is artillery, when it can be used. The problem of counter-attack therefore frequently resolved itself into one of finding targets for artillery concentrations, such as villages or defiles where the enemy were prone to lie up; infantry patrols were used to report the enemy's presence in such places. Experience proved that in thick country the encircling counter-attack does not lend itself to artillery support and requires fresh and highly trained troops. As an alternative, a "filleting attack," so called because the aim is to remove the enemy's "backbone," was sometimes made astride a road to a depth of 2,000 yds. or so, supported by a narrow barrage. It is likely to disrupt the enemy's control and can be put in fairly quickly.

6. Night operations

1. *Japanese skill.*—Reports from Malaya describe a number of incidents which illustrate the Japanese skill in moving through thick and difficult country at night. In order to attack the aerodrome at Kota Bahru they crawled through the paddy fields up to the perimeter of the aerodrome before launching their attack. Enemy parties frequently crawled forward at night to cut our wire and attack M.G. posts which they had managed to locate by day, and on one occasion officers giving out verbal orders in the dark were shot.

2. *Counter-measures.*—The most satisfactory reply to the Japanese methods was to move after dark to alternative positions. In this way the enemy was denied the opportunity of staging attacks against well-reconnoitred positions and became himself liable to surprise by our troops. Experience has shown that the Japanese are peculiarly helpless against unforeseen action by an enemy force.

At dusk, standing patrols were established close to the enemy flanks and to routes which were likely to be used for outflanking movements. Trip wires and alarm signals were of value in giving warnings of enemy movements. It is important to watch all routes up to some distance beyond the flanks and to send out detachments to carry out bold offensive action against the enemy's flank and rear. Once again the lesson is that defence to be successful must be offensive.

7. Protection

1. *Headquarters.*—Japanese infiltration and skill in moving considerable distances through jungle or through apparently impassable country shows once again the need for adequate plans for the defence of headquarters and rear installations. All troops are liable to attack and must be ready to defend themselves instantly, however far they may be behind the main battle zone. In Malaya at least one brigade H.Q. suffered heavy casualties as the result of Japanese infiltration.

2. *Japanese weaknesses.*—Reports from Malaya and Burma agree in pointing out that Japanese often neglect their protection both on the move and at the halt. When lying up by day, their local protection was poor and sometimes non-existent. They were careless about putting out an effective screen when advancing at night and were therefore easily ambushed. Supply lines and communications were habitually unprotected.

8. Withdrawal

1. *General.*—The speed of the Japanese advance in Malaya and their numerical superiority resulted in operations of a very fluid nature; plans made and positions chosen for our withdrawal often became useless before they could be put into effect. In consequence, our forces were continually forced to retire in small bounds to new areas where they had to start preparing new positions at once. In view of the circumstances, these improvised moves were often inevitable, but it should be remembered that thinking ahead and rapid issue of orders will do much to assist an orderly withdrawal and to enable troops to fall back upon prepared positions.

2. *Ambushes.*—The Japanese made great use of ambushes; it is therefore important to study the tactics suitable for dealing with ambushes and the measures to be taken to avoid disorganization when moving through the jungle. In close country, where roads are particularly vulnerable to parties infiltrating through the jungle, it may be necessary to picquet the route; this action was taken to facilitate the passage of our columns after we had cleared the Japanese block on the Prome road north of Taukkyan in Burma.

The account of one ambush carried out in Malaya is of interest.

"A main defensive position had been occupied by a formation which had retreated along the road by which the Japanese were advancing. Before the withdrawal, a battalion had secreted itself in the jungle some five miles in advance of this defensive position. One company of this battalion was hidden some four or five miles farther ahead, and overlooking a bridge which had been prepared for demolition. The plot was to allow 300 or so of the Japanese, including their advanced cyclist troops, to pass over the bridge, and to rely on the main body of the battalion to deal with them should they proceed that far; then to blow the bridge behind them, if possible, when it was thickly covered with enemy troops. The forward company was then to deal with any enemy on the farther side of the bridge by pounding him with fire from concealed machine guns of all kinds, mortars, and artillery. Next the company was to follow the advanced enemy troops and operate against their rear. This company had placed in the jungle close to the side of the road a number of men armed with rifles, tommy guns, Bren guns, and grenades. Their duty was to close in on the advanced enemy troops or at least a section of them and kill them off while they were still moving forward. From their position they could also protect the rear of the party dealing with the enemy across the bridge.

The plan worked well—with slight variations due to the unexpected action of some of the enemy.

At 1610 hours, the enemy approached. When about 500 men, mostly mounted on bicycles, had crossed the bridge, the bridge was 'blown'. Quite 50 men went up with the bridge. Immediately, a storm of fire from the concealed weapons of the advanced elements of our troops was directed at the mass of Japanese marching along the straight road leading towards the bridge. Hearing the din, some of those who had been permitted to pass through turned round but were confronted with the remainder of the forward company. The enemy jumped off their bikes, released their rifles from the bicycle frame, and, some grabbing, some fixing their bayonets, charged. All of the enemy who charged were killed, with only one defender wounded. The rest of the Japanese were dealt with by rifles, light

machine guns, and grenades. In this encounter it is conservatively estimated that well over 500 Japanese were killed at a cost of one man slightly wounded.

Next morning the Japanese came forward again with sixteen light tanks and a brigade of infantry to help them. They met the remainder of the battalion which was lying in wait for them. In the fight which followed the enemy lost ten tanks and another 500 men killed. Our casualties in this affair were less than 100. The battalion, having successfully performed its allotted task, then fell back on to the main defensive position."

3. *Scorched earth.*—The importance of immobilizing all transport left behind during a withdrawal was amply proved. Bicycles and river craft are as important as vehicles. In Malaya there was no standard plan for the destruction of M.T. or bicycles which had to be abandoned; the result was that cannibalization and consequent repair of vehicles was not difficult.

4. *Stragglers.*—Reports from Burma state that stragglers proved to be a great problem. Individual soldiers, when separated from their units, developed a sense of loneliness and were apt to be "on edge"; the sound of rifle fire in the jungle often gave them the impression that they were being hunted by the enemy. Only highly trained troops should be permitted to move alone, as individuals, when in the jungle; less highly trained troops should always be accompanied even when only falling out during the hourly halt on the march. Stragglers' posts and provost parties on a liberal scale would have been of assistance in collecting and reforming stragglers moving down the road and tracks.

Small parties of troops frequently imagined themselves to be cut off when, in reality, only one or two Japanese had managed to get into the jungle behind them. In such circumstances there must be no question of surrender; troops must either fight it out or must fight their way through. Experience proved that the British or Indian soldier was infinitely superior man for man to the Japanese, and that, with determined leaders, there was no difficulty in breaking through the jungle.

9. Engineers

1. *Demolitions.*—Because of the rapidity of our withdrawal in Malaya demolitions were often hastily prepared and proved comparatively ineffective. It is reported that, on an average, demolitions served to delay the enemy for little more than one third of the time estimated. The operations have shown the importance of paying further attention to the tactical aspects of demolitions, particularly to ensuring that demolitions are not blown prematurely. A small raiding party of Japanese passed behind our troops and caused premature blowing of one bridge; this misfortune resulted in heavy casualties to the troops on the enemy side of the river. An example of failure to provide covering troops for important demolitions occurred at the Perak river in Malaya, where three large bridges were blown.

Demolitions of roads running across steep hillsides have often proved unsatisfactory. Road blocks at Hong-Kong were made by blowing the hillside on to the road instead of undercutting the road itself, with the result that the block could be cleared easily and the road opened very quickly for use by the Japanese.

2. *Repairs.*—Japanese engineer units proved to be extremely skilled at making good the demolitions carried out by us in Malaya. Valuable work was done in repairing railway bridges; this was facilitated by the preparation and accumulation of railway material in Siam before the outset of the campaign. The Japanese were also aided by the use of repair material which we had collected and dumped near our bridges for use in the event of damage from bombing during our intended advance northwards. In repairing partially damaged road bridges they used rubber trees to span the gap, covered the trees with earth, and then laid a roadway of planks.

3. *Camouflage.*—In Singapore and Malaya it appears that there was a general lack of attention to camouflage, both from the ground and from the air. Such camouflage schemes as were carried out suffered from our own great numerical inferiority in the air. The Japanese were able to observe and photograph almost at will. It was found that hessian with scrim garnishing faded quickly and was of little use.

10. Intercommunication

1. *Failure of communications.*—A report from Malaya gives the following reasons:—

i. Attempts to conserve wire by laying it along the shortest route; the shortest route often proved to be the most vulnerable.

ii. Lack of wire—which was frequently jettisoned, although the gravity of the situation was not sufficient to justify leaving it on the ground. An infantry unit reports taking up eight miles of line which it found abandoned.

iii. Unnecessary traffic; lengthy conversations and normal routine work holding up operational messages.

2. *D.Rs.*—Experience has shown the need for D.Rs. in close country. In Malaya cipher was found to be useless below divisional H.Q. because of the serious delay it imposed. Wireless proved invaluable, but jungle reduces its range, so that there is always liable to be a shortage of sets, which are prone to deteriorate in tropical climates. D.Rs. were the only satisfactory alternative, visual methods being of negligible value in close country.

3. *L.Os.*—L.Os. will always be of great value. They must, however, be suitably mounted. Cars of the Jeep type and M.Cs. can move reasonably freely in the jungle.

4. *Japanese methods.*—The Japanese used a pack set which was carried and operated by one man and is said to have been very efficient; large numbers of these sets were used, to compensate for reduced range.

At Singapore the enemy are reported to have used D.F. to locate our wireless sets; broadcasts on our own wavelengths are also mentioned.

11. Air support

1. *General.*—At the outset of the Far East campaigns, Japanese air attack concentrated upon our aerodromes and very quickly put out of action a great part of our air resources. From then onwards the R.A.F. were greatly outnumbered until, by the beginning of April, the Japanese had managed to secure virtually complete command of the air in Burma.

The individual air superiority of the R.A.F., however, remained unchallenged. The invaluable support given by them during the withdrawal from Rangoon and the outstanding performance by their fighters in shooting down 30 Japanese fighters for the loss of one are sufficient examples.

Judged by Western Desert or Eritrean standards, Japanese air operations in Burma were considered to be poor.

2. *Reconnaissance.*—Operations in Malaya were greatly handicapped by lack of adequate air reconnaissance. No allotment was available for forward troops.

The Japanese, on the other hand, made great use of air reconnaissance and were able to pass information very rapidly to forward commanders. It should be remembered, however, that the value of air reconnaissance is partly offset by the fact that well-trained men are practically immune from air reconnaissance in thick country. It was found in Burma that, in spite of almost daily R.A.F. reconnaissance, few troop concentrations were reported.

In Burma reconnaissance was carried out along river lines, and reports and photographs proved of great value in locating enemy concentrations of boats and rafts.

3. *Close support.*—In Malaya enemy bombing of our aerodromes had deprived our troops of air support; no A.A.S.C. existed. In Burma, however, the situation was better, and much valuable support was given, particularly in the Kawkareik area. Difficulty arose from lack of training and experience; there was very little idea of what could be reasonably expected in the way of air support or of how long it would take to arrive. Fighter protection for daylight moves was asked for on several occasions, but owing to lack of machines could not be provided. Japanese air support in Malaya was rapid, and it appeared that leading troops were able to call for it direct.

4. *Bombing.*—Japanese air methods were often stereotyped. In Burma, the morning reconnaissance would appear at a regular hour, and some three hours later the bombers would arrive and plaster the positions where the reconnaissance had located our troops; all bombs were released within a few seconds. The prophylactic measure was, of course, to move to alternative positions some way away during the three hours' grace.

The standard bombing raid consisted of 27 bombers escorted by fighters, while on such targets as Rangoon raids were normally much heavier. Attacks on towns and villages were most effective because of the flimsiness of the wooden buildings. Japanese fighters often operated alone, particularly in attacks on aerodromes, which were shot up, even though no aircraft were about. Woods and other cover close to the aerodrome always received attention. In Malaya the Japanese never attacked our vehicles at night, although they were a favourite target by day. A report from Burma refers to night attacks by aircraft using navigation lights.

Early in February the R.A.F. carried out a successful raid on Paan, then known to be full of Japanese. This was the first time that many of our troops and local inhabitants had seen our air force in action. After much bombing from the Japanese they were greatly encouraged to witness retaliation. Our bombing invariably scattered and disorganized the civilian populations of towns and villages and was of great value in dislocating the labour upon which the Japanese were most dependent.

During the Burma campaign it was at one time found necessary to provide small observation groups as part of an air-raid warning system. Detachments of Indian troops carried out this task and passed their warnings by helio, instead of imposing an additional strain on the already limited wireless communications.

5. *Supplies.*—Considerable quantities of supplies were dropped during the closing stages of the campaign in Burma. Earlier on it had been found that endless delays were caused unless containers were prepared and packed well in advance.

6. *Aircraft.*—It is reported that Japanese fighters when fitted with extra petrol tanks had a range of up to 1,500 miles. Fighters did not appear to be armoured in any way or to carry self-sealing tanks.

12. Intelligence

1. *Information.*—The failure on the part of troops in action to send back up-to-date and useful information was a marked feature of the campaign in Malaya. This failure was no doubt due in part to the continual withdrawals which our troops were compelled to make, and to the constant danger of being outflanked and cut off. It is, however, clear that there was little appreciation among officers and men of the vital importance of gleaning every possible item of information, however trivial, and of sending it back to headquarters at once. A captured Japanese document stresses this point and emphasizes that often even the briefest of reports are of great value.

Apart from the general failure to send back information, there were many complaints from junior leaders that they were not told what was happening and that they had very little idea of what part they were playing in the operation as a whole. Detachments cut off, as they frequently were in Malaya, were thus unable to use their initiative to the best advantage. Every effort should be made to keep troops as thoroughly informed of the situation as provisions of security will allow, in order to counteract the harmful effects of enemy broadcasts.

In Burma the shortage of information of all kinds was largely due to lack of means of communication, whereas in Malaya it was due to lack of appreciation of its importance, which we must hammer into all ranks in training.

2. *Prisoners.*—During the Malayan campaign there was a general failure to realize the value of prisoners from an intelligence point of view. Far too often they were treated as an encumbrance. It cannot be too strongly emphasized that prisoners are most valuable and must be sent back in good condition and by the quickest available means of transport. The number of prisoners captured in Malaya was extremely small, and of these the majority were sent back without any documents showing place, time, and circumstances of capture. Very often it took over a week to get prisoners from the fighting areas to the G.H.Q. intelligence staff, by which time the scene of operations had changed so much as to render any information gained almost useless.

The Japanese soldiers consider that it is a disgrace to be taken alive and, when captured, often ask for a revolver with which to commit suicide. This attitude usually changes after a time when they realize that they are to be well treated, and that their names will not be communicated to Japan.

Good results were obtained from interrogation of the few prisoners available in Malaya.

The value of personal diaries and documents of all kinds was not realized. At the beginning of the campaign very few were sent back for examination. Later on more of these became available, but the value of the information contained in them was decreased by the fact that documents were not accompanied by details of the source of capture.

3. *Patrols.*—Throughout the campaign there were few serious attempts made to obtain information of enemy strength and unit identifications by the use of active fighting patrols. Failure in this respect had most serious results during the attack on Singapore. In spite of orders, patrols to test the enemy strength on the far side of the Johore Straits were not sent out until too late. At last, after crossing the straits, the patrols discovered the Japanese massed on the far shore with a large number of rafts which they had constructed. By the time this information reached G.H.Q., the Japanese attack had been launched.

4. *Local inhabitants.*—The Japanese were able to make great use of local inhabitants as guides and for obtaining information, and often used money for the purpose. Experience has shown that we must be prepared to do the same. Local guides are essential in jungle country where keeping direction is extremely difficult and where maps are inaccurate. Europeans and guides with local knowledge should be organized before operations begin.

5. *Maps and compasses.*—The lavish issue of maps to the Japanese troops in Burma was another example of the enemy's thoroughness. Our own patrols and detachments, many of whom were often lost in the jungle, would have been greatly assisted by simple sketch maps or enlargements from the few maps available, and lists of simple phrases in the local language.

Our own troops were far too apt to rely upon the features shown upon their often inaccurate maps; rivers and creeks were assumed to be impassable either from hearsay or from their appearance on the map. Before any reliance can be placed upon obstacles to delay an enemy, those obstacles must be reconnoitred on the ground.

13. River tactics

1. *General.*—Japanese river operations in Malaya were greatly facilitated by their control of the sea and by their use of large numbers of native craft. With the assistance of naval patrols we attempted to destroy native craft in Johore; but by that time the Japanese had already acquired large numbers of boats; our efforts, therefore, proved fruitless.

The following paragraphs of this section summarize a Japanese pamphlet on fighting in river deltas, a copy of which was captured by Chinese guerillas in 1938.

2. *Craft.*—The importance of requisitioning all local craft and of impressing local pilots and crews is stressed. An example of Japanese thoroughness is the suggestion that the presence of interpreters and the use of "comforting handbills" will assist requisitioning. Boats should be stationed at entrances to village harbours in order to prevent the escape of requisitioned craft.

3. *Patrols.*—Patrols are needed to carry out general reconnaissance and, in particular, to discover any obstruction of the waterway. The patrol flotilla is comprised of infantry, artillery, and labour corps personnel, and is led by naval craft.

The flotilla can move in either one or two lines, the interval between craft being about 40 yards. When moving in two lines, each line moves close in shore to return the fire of possible attackers and to cover the advance of their ground troops. Patrols must thrust through obstacles. Where opposition is encountered, the boats employed in clearing the obstacle should keep close to the banks while the boats with supporting weapons fan out and engage the enemy. The infantry then attempt a landing and carry out an encircling attack on the enemy.

Patrol leaders should normally move at the head of the column and should be provided with a speed boat to assist them in controlling the operation.

4. *Offensive.*—Training, surprise, and protection are essential to success. Troops must be skilled in rapid embarkation and landing and a high proportion of them must be trained in watermanship. Night operations and attacks from different directions along little known waterways are all aids to obtaining surprise and should be exploited.

The protection of flotillas operating along main waterways is important. This may be assisted by setting up O.Ps. on any suitable features on either bank and by blocking or patrolling tributaries of the main stream. Obstruction is most easily effected by sinking native boats where rivers are narrow or shallow.

5. *Administration.*—Supplies should follow the fighting flotillas and are best carried in large motor boats. Dumps may be established on the shore. Water from rivers and streams is not always fit to drink, and special arrangements for provisions may often be necessary. Medical resources should be based on a field hospital, either afloat or on the bank, and should be split between different parts of the force.

6. *Intercommunication.*—The necessity of establishing efficient communications between flotillas, patrols, and detached parties is emphasized. Wireless is essential. Light and flash signals are suggested for recognition purposes between the waterborne force and forces that have landed.

7. *Conclusion.*—In general, it may be expected that the Japanese will use waterways in the same way as they exploit little known jungle tracks—to aid infiltration and encirclement. We may well find opportunities of taking a leaf out of the Japanese book.

14. Administration

1. *Supply.*—Throughout their campaigns the Japanese have simplified their administrative problems to a great extent by living on the country and by equipping and training their soldiers to travel for a number of days through the jungle with their supplies either in their packs or on very light vehicles. In Burma they are reported to have relied very largely on local supplies and to have paid for them in Japanese printed notes. In this respect our own troops were at a great disadvantage. Some reports suggest that there were occasions on which our own troops, when short of transport or supplies and in contact with the enemy, might with advantage have made greater use of local resources. Recent

experience has shown that our troops have sometimes been too dependent upon a rigid system of supply and that they must be prepared to live on the country to a far greater extent than in the past. While it will normally be impracticable to live entirely on the country, it is evident that troops must be prepared to live on a much simplified diet and scale of rations. A report from Malaya states that in rations alone some eighty to ninety different commodities had to be provided. Fighting men should be independent and, like the Japanese, should be capable of being self-supporting and of carrying their own food for up to five days.

One report from Burma stresses that every man must be able to do his own cooking. This is no new idea; it was laid down in the Regulations for the 95th Rifle Corps when training under Sir John Moore, and we must train to this standard for all theatres of war. The Japanese in Malaya and Burma seldom centralized beyond section cooking, and even then each man cooked his own food at the section cooker.

During the Burma campaign one brigade was at one time without rations for two days, and during the latter part of the operations the army as a whole was on half rations. Dumping of rations is often useful during defence or withdrawal, provided that some are retained on wheels as a mobile reserve. Sites for dumps must, however, be selected away from towns or villages in jungle, since they consist of wooden buildings and are easily set on fire by shelling and bombing.

2. *Medical.*—A report has been received of the steadiness and high standard of discipline shown by Japanese prisoners during an air attack on one of our ships on which they were being evacuated from Singapore. The rapidity and skill with which casualties were dealt with by the Japanese was evidence of the high standard of training in first aid given to these troops. This incident provided yet another example of the attention given in training Japanese soldiers to look after themselves and thus to be independent of a complicated administrative system.

In some of our units detachments were issued with iodine and plaster from the R.A.P. to supplement the first field dressing and to enable troops to deal themselves with the small cuts and sores which are particularly troublesome in tropical countries, becoming septic if neglected. The Japanese troops were encouraged to bathe daily in whatever rivers or streams were available; a recommendation has been made that our troops should do the same when operating under similar conditions.

3. *Transport.*—In keeping with their policy of reducing demands on administrative services to the minimum the Japanese have shown considerable skill in collecting and using local transport, including river craft. In the Irrawaddy delta region use was made of bullock carts and captured vehicles, while air reconnaissance reports from other areas of the massing of elephants show the extent to which the enemy were prepared to make use of local resources. Reports from the Philippines state that local inhabitants were used to push trucks and tanks in order to save fuel.

In Burma, movement was much handicapped by the broken country and by the fact that many of the links—rail, ferry, road, and river, which were manned by civilians—broke down during air raids when civilian labour almost invariably vanished. This fact was particularly noticeable when stores had to be evacuated from Rangoon; for ammunition and other ordnance stores over eight hundred railway trucks were required.

Japanese motor transport was normally kept much farther back than our own. There is no doubt that in Malaya our troops were too heavily

equipped, and that the forward zone was cluttered up with unnecessary baggage and transport. Vehicles tended to become canalized along indifferent roads and became easy targets for enemy air attack.

On account of the lack of Japanese air activity by night it was normally possible to use vehicle lighting, although, on occasions, attacks were made at night by aircraft flying with navigation lights. Until the Japanese increase the scale of their night attacks, it may be desirable to risk attack and make full use of vehicle lighting to move rapidly and avoid accidents. Casualties will inevitably occur to columns moving without lights along narrow and indifferent roads.

15. Weapons and equipment

1. *A.F.Vs.*—The Japanese made little use of tanks in Burma. They were employed at the outset of the operations and, later on, after breaking through on the Chinese front. Such tanks as were used were not up to the standard of British tanks and were easily dealt with by our anti-tank guns.

The light tanks with which our forces were equipped in Burma had neither close support weapons nor any means of providing smoke cover. The lack of these means proved a very great disadvantage, for the use of smoke would have been invaluable in closing the range when our tanks were engaging enemy road block defences. Road blocks were often defended by 70-mm. guns firing H.E. Shells never penetrated our tanks, but had the effect of putting the crew out of action owing to concussion. An estimate was made that every other tank hit by 70-mm. fire was disabled; the suspension was destroyed or the guns bent, thus rendering the whole tank liable to attack by petrol bombs.

2. *Anti-tank weapons.*—The Japanese in Malaya used several types of anti-tank grenade. Among them were magnetic types; one of these is placed by hand, while another type can be thrown 10 yds. Both types explode after 5 seconds' contact. In Burma they used all available weapons, including light artillery and mortars, against our tanks attacking their road blocks.

3. *Artillery.*—In Burma the enemy made little use of artillery. 70-mm. and other light guns were used principally for the defence of road blocks. Little use was made of smoke by either side, the thick jungle in Malaya and parts of Burma normally providing an adequate screen. Our own artillery vehicles, when moving along roads, proved to be very liable to ambush. Local protection on the move in jungle must be taken very seriously by all arms.

4. *Mortars.*—The Japanese are skilled in the use of mortars and employ them extensively; they bring them up and into action very rapidly, and fire them with considerable accuracy.

Our own troops found it difficult to get the range or the view to make the best use of the 3-in. mortar in thick country. An O.P. had to be sited at a distance from the detachment, which was then controlled by telephone. The necessity for care in siting was emphasized; one officer was killed by one of our mortar bombs hitting a branch at the mortar site.

5. *Personal equipment.*—Units found it desirable to make the following alteration to equipment for use in the jungle:—

i. Canvas boots or shoes with rubber or rope soles to replace ammunition boots.

ii. Small haversacks to carry the minimum of food and washing gear.

iii. Equipping of officers to make them indistinguishable from men. Lack of rifles and minor differences in equipment and dress have made officers particularly vulnerable to Japanese snipers in trees.

16. Fifth column

1. *Preparations.*—Throughout the Far East the Japanese carried out a thorough organization of Fifth Column. Wireless sets had been established throughout these countries; aerodromes were watched, and the movements of planes reported. In Singapore a Japanese photographer was found established with a W/T set in the Cathay building, the highest in the city, whence he directed Japanese artillery fire with considerable accuracy.

In Burma a traitor army was organized. Reports suggest that this army was divided into "regulars" and "saboteurs." Saboteurs were equipped with pistols and explosives, while the "regulars" were provided with L.M.Gs. and mortars and were led by Japanese N.C.Os. Local enlistments were considerable, particularly in the Shwedaung—Prome area.

A comprehensive system of identification badges was arranged by the Japanese for their agents in Burma; civilian sympathizers wore red arm bands, badges carrying a red cross, and brooches and cuff-links showing a red lozenge. In general, the population of Burma accepted the turn of events with complacency.

Japanese influence can be traced in many of the pre-war troubles in Burma, where strikers in the oilfields were financed and Muslim-Buddhist riots fomented.

2. *Identification of targets.*—German methods used in Holland, Belgium, and France were followed extensively; sheets and papers hung out in the open, the cutting of crops and the scattering of rice—all in pre-arranged patterns—were used in Malaya. These signs were sometimes photographed by the Japanese, who thus obtained a record of the position of targets which was of value even after the signs had been obliterated. When an aerodrome in Malaya was bombed, several of our machines were damaged and abandoned; as the result of a further attack carried out against the only two undamaged aeroplanes, paper signs were discovered on the edge of the aerodrome pointing to the machines.

Night bombing raids were assisted by the use of torches, rockets, and coloured lights; on one occasion an iron hook was used to connect a house lighting circuit to the street lighting, thus turning on the street lamps.

3. *Communications.*—Three examples are given of attacks against communications:—

i. Telephone wires were cut in close proximity to our troops. After one such incident wire-cutters were discovered in a regimental fruitseller's basket.

ii. Railways were cut by removing fish plates or by putting bombs on the track.

iii. Motor tyres were burst by laying down boards studded with spikes at bends in the road.

17. Miscellaneous

1. *Chinese assistance.*—Reports from Malaya speak of the loyalty and steadiness of the Chinese population. They gave great assistance to our troops, often at great risk to themselves. There were many instances of Chinese wood-cutters and other humble people making themselves responsible for the feeding, shelter, and guidance of parties of up to a dozen of our men.

A description of guerilla activities in China is given at Appendix B.

2. *Deception.*—The use of civilian cars to assist in capturing bridges prepared for demolition and the protection of their own advancing troops by a screen of Indian prisoners were further examples of Japanese methods.

A report from Burma describes the disarming and capture of a company of British troops while crossing the Pinchaung river; the Japanese held their rifles vertically above their heads in accordance with the recognition signal and were thought to be Chinese. This incident emphasizes the necessity of constant changing of recognition signals.

3. *Propaganda.*—Japanese troops in Malaya threatened to molest Malay women when they occupied villages; this threat succeeded in drawing men back to their villages and in causing some desertion from locally raised units.

In Burma, enemy aircraft dropped leaflets carrying the words "Burmans, remember Mandalay, 1938."

18. Conclusion

The last issue of Notes dealing with the Far East brought out four main lessons: discipline alone will enable an army to withstand a succession of disasters without losing its cohesion or ability to strike back; the offensive spirit must be cultivated if defence is to be successful; training must aim at developing initiative and adaptability; and, finally, we must not underestimate our enemy's skill and determination. These points are mentioned time and again in every report that has come from the Far East; the need for more discipline and for more intensive training, whether in A.A. defence or in road movement or in musketry, is evident. There are, however, certain other lessons to be learnt.

First, there is no doubt that troops who are situated away from active theatres of operations are inclined to feel that their duties are unexciting and contribute little to the military effort. They are liable to develop a peace-time outlook—to forget that "there is a war on." Events in the Far East have shown only too clearly that actual battle may overtake any soldier, wherever situated, with unpleasant suddenness. Every moment of respite must, therefore, be fully exploited by preparation for the battle when it comes, as come it will. The longer the respite, the greater is the onus which falls on commanders, staffs, and regimental officers, of combating the peace-time mentality by making training interesting and realistic.

Secondly, experience in the Far East and in other parts of the world has shown how incapable many of our troops are in fending for themselves when they are thrown upon their own resources. The reason must be sought in their early upbringing: the majority have been born and bred in towns and have missed many of the advantages of the countryman's upbringing. Their military training must be designed to teach them to

look after themselves and to overcome their fear of loneliness and of the unknown. In most countries there is little difficulty in setting up small camps in remote places where junior leaders can learn man-management and can gain experience in dealing with simple administrative problems, and where the troops themselves can learn self-reliance.

Thirdly, our troops must understand what they are fighting for; they must realize that success or defeat in the most remote theatre of operations will directly affect our prospects of success or defeat in the war as a whole and, ultimately, of freedom on the one hand and of slavery on the other. Only in this way can apathy be overcome and its place be taken by an irresistible determination to "make the grade," whether in training or in battle. The responsibility for teaching troops the vital significance of the war, wherever it is being and may be fought, rests with the junior regimental officer; he must be the source of the inspiration and fire which is so essential to our success in battle.

Events of recent months have shown that there is no magic about the Japanese forces. In many parts of the Far East they have been thrown on to the defensive; the recent successful landing in the Solomon Islands by American forces is evidence that well-trained and well-equipped troops can defeat them. We have learned enough about the Japanese to be able to appreciate his strength and weaknesses. With good leadership and discipline and with realistic training there is no reason why we should not repeat in the Far East the lightning campaigns which we carried out so successfully in East Africa.

APPENDIX A

SUMMARY OF THE JAPANESE CAMPAIGN IN BURMA

(*See* map of Burma.)

The Japanese campaign in Burma can be divided into four main phases:—

1st Phase.—Operations in Tenasserim, culminating in the capture of Tavoy on 19 January.

2nd Phase.—The battle for the Irrawaddy Delta, ending with the fall of Rangoon, on 8 March.

3rd Phase.—The advance northwards along the valleys of the Sittang and Irrawaddy rivers, ending in the capture of Prome and Toungoo.

4th Phase.—The Japanese drive against the Chinese positions, resulting in the break-through to China along the Burma Road.

1st Phase.—The campaign against Burma opened when a Japanese detachment moving by sea from Saigon landed south of Bangkok, seized the railway, captured Chumporn, and moved down the road to Victoria Point, which fell on 11 December.

The main body moved by road from Indo-China, and, because of the difficult country, the approach march from Bangkok took until the middle of January. On 19 January Tavoy was occupied.

2nd Phase.—In the meantime another Japanese force advancing from Siam occupied Kawkareik on 23 January. This division included a special engineer battalion which was employed in improving the indifferent track from Raheng and enabling stores, supplies, and fresh

troops to follow in the wake of the Japanese spearhead. Moulmein was captured on 2 February.

Two days later, the Salween river was reached on a broad front. It was crossed on 9 February, and on 10 February Martaban was stormed. This made the British line of defence on the Salween river untenable. On 15 February the Japanese reached the town of Thaton; on the 17th the town of Bilin was attacked and the British line on the Bilin was broken. On 22 February the Japanese were before the British positions on the Sittang. There was a pause during which they dug themselves in and prepared for action.

On 2 March the advance was resumed; on 7 March the town of Pegu was taken by a wide flanking movement, thus cutting the Rangoon—Mandalay railway. On 9 March the Japanese entered Rangoon. Pushing on to the south-west they occupied the Irrawaddy Delta on 11 March and, after further landings, Bassein fell on 17 March.

3rd Phase.—With their southern wing now resting firmly on the Bay of Bengal, Japanese operations turned northwards on a broad front. The direction followed the course of the Sittang and Irrawaddy rivers with Prome and Toungoo as the immediate objectives, and by the end of March these two objectives had very nearly been reached.

Subsequently the Japanese advance was slowed down. On the Irrawaddy the Japanese encountered strong delaying actions by the British forces, whilst on the Sittang they encountered two Chinese armies commanded by General Stillwell.

4th Phase.—By the middle of April the Japanese on the Irrawaddy had reached a point half-way between Prome and the oilfields at Yenangyaung. On the Sittang they continued their advance northward from Toungoo. At this stage, however, the Japanese, who had been reinforced, developed a movement which subsequently led the way to the capture of Lashio and, ultimately, to the fall of Wanting and Myitkyina.

On 17 April, the British forces had to retire north of Magwe, and the Yenangyaung oilfields had to be destroyed. Many gallant rearguard actions were fought by the British troops in the area, and the Japanese made great efforts to prevent the destruction of the oilfields by infiltrating through the British positions and attempting to block the road between Yenangyaung and Kyaukpadaung, farther north.

By 19 April Chinese troops were fighting with the British on the Irrawaddy. Fierce engagements occurred on the Pinchaung, a river running from east to west into the Irrawaddy, near Yenangyaung, and on the Sittang. By 21 April the British forces on the Pinchaung had been successfully withdrawn across the river as a result of a joint Chinese-British attack at Yenangyaung. Chinese forces coming from the north, supported by British armoured units, had re-entered Yenangyaung after two days' fighting, and had thus relieved a force of several thousand British troops which was surrounded there. The Japanese made repeated attacks on the town on 20 and 21 April but failed to recapture it.

By 23 April the British forces had withdrawn from the Taungdwingyi area, owing to considerable reinforcements having reached the Japanese. East of the Sittang, however, the Chinese succeeded in holding Taunggyi, despite furious attacks in which much hand-to-hand fighting took place. Heavy fighting also occurred in the Pinchaung area and near Yamethin, on the Sittang, which the Japanese entered on 26 April. The next day the British troops were holding a line running from Kyaukpadung to

Meiktila, some 50 miles to the east, where they were in touch with the Chinese, while the Chinese reported that the Japanese, having been further reinforced, were continuing to advance from Hopong, just east of Taunggyi, in several columns, each of them supported by continuous air bombing. They also made a fresh assault on Taunggyi, but were unable to overcome the Chinese resistance.

In the meantime the Japanese, having encountered strong resistance in the Taunggyi area, brought up their light tanks and, taking advantage of the failure by the Chinese to block the Loilem—Lashio road, pushed forward rapidly. It was apparent that organized Chinese resistance had collapsed as the Japanese advanced unhampered, and, after storming Lashio on 30 April, they reached Wanting on the Yunnan—Burma border and Myitkyina on 8 May.

In the interval, Mandalay and Akyab had fallen to the Japanese.

Operations temporarily came to an end with the simultaneous withdrawal of the British into Assam, and of the Chinese forces into Yunnan.

APPENDIX B

CHINESE GUERILLAS

1. *General.*—Although the Japanese have occupied large tracts of China since the present Sino-Japanese hostilities began in 1937, control over the countryside has been limited to a comparatively small area. Usually it has been effective only in towns with Japanese garrisons and along the railways, roads, and waterways, where Japanese posts are maintained. The intervening country is covered by patrols and punitive columns, and a local Chinese civil administration, loyal to Chungking, often continues to function.

In most of these areas guerilla forces exist, usually highly organized and sometimes commanded by regular officers who, in large areas, may often be major-generals. Apart from those who may be described as "permanent guerillas," they normally receive a great deal of assistance from civilians, many of whom are farmers by day and guerillas by night. The whole system is very complete, and it is most rare for the Japanese to pin down large bodies of guerillas or to carry out a successful raid on a guerilla H.Q. These H.Qs. are normally distributed in permanent houses over a wide area. In one instance such a H.Q., complete with telephonic communications, received warning that a Japanese force was approaching, and in ten minutes the buildings occupied were completely vacated and there was no sign whatever that it had been established there.

Great stress is laid on mobility as a means of avoiding danger, and marches of 30 miles a day are common.

Objects.—The objects of the Chinese guerillas may be given as:—

i. To maintain friendly relations with local inhabitants and keep up morale.

ii. To keep Japanese garrisons "on edge" and as inactive as possible, without bringing down undue retaliation on the inhabitants.

iii. To immobilize as many Japanese troops as possible.

iv. To exterminate Chinese traitors in Japanese employ.

v. To prepare for the glorious day when the Chinese will at last be able to rise and drive out the invaders.

It will be noticed that very great emphasis is made on retaining the good-will and keeping up the morale of the civil population. This is always an essential factor, since the guerilla inevitably depends upon the support and help of the inhabitants to carry on his operations. It is all the more necessary in a country such as China where banditry has always been rife, and where pseudo-guerillas may very easily prove to be little better than bandits. Moreover, the Chinese argue, very logically, that with the present immense Japanese superiority in weapons and equipment one cannot expect peasants to take undue risks, knowing that retribution, which they are powerless to avoid, is bound to follow and that their own forces will be unable to protect them in any way or even, for some considerable time, to avenge them.

Methods.—The guerillas therefore do not normally aim at bringing off spectacular coups, and, provided that the Japanese garrisons adopt a policy of "live and let live," they do not interfere with them unduly so long as they keep within their perimeters. Any small parties or single men who stray too far from their posts, especially at night, are eliminated. Thus the garrison's nerves are kept on edge and no Japanese dares to move except in a large party. The principal offensive method favoured is train-wrecking, charges being placed on the rails connected to an exploder to enable a particular coach to be selected. Every effort is made to select troop trains and avoid blowing up trains carrying ordinary Chinese passengers.

Intelligence.—The guerillas have a very highly developed intelligence system which is, of course, essential if their activities are to be successful. They are thus able to supply much useful information to the Chungking government. They maintain a Japanese order of battle, and every Japanese post is surrounded by an unobtrusive ring of watchers who give warning by telephone, runner, or sampan of any suspicious movement. Many agents are also planted in the puppet forces and efforts are made to ensure that a proportion of menials in Japanese employ will act as spies on their temporary masters.

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No. 9 : MADAGASCAR, May, 1942

PART I.—OUTLINE OF OPERATIONS

Note.—For security reasons the names of formations and units taking part in the operations cannot be given. In the following account the first brigade to land has been called the " Assault Brigade," and the second the " Support Brigade."

1. Introduction

The Japanese successes in Malaya, Singapore, and later in Burma, extended the sphere of enemy naval operations considerably. It was realized that our main route via the Cape to Egypt and the Middle East generally could now be menaced by Japanese naval forces operating in the Indian Ocean. The distance from their nearest base in Burma made it clear that for these attacks to be successful the enemy would require a base from which operations in the Indian Ocean could be directed. The obvious place for this was the Vichy French naval base at Diego Suarez in Madagascar. Here the enemy would have every facility for carrying out his raids on our convoys ; a deep and protected harbour ; all necessary port installations, and proximity to the vital Middle East supply route.

To have remained inactive under such a threat would have been suicidal, since the Mediterranean route to the Middle East was already hazardous because of attacks by German and Italian bombers based on Sicily and Tripoli. The possession of Madagascar was of paramount importance if the provision of arms, ammunition, and supplies generally to the Middle East and, incidentally, Syria, Iraq, Persia, and Russia, were to be maintained.

2. Outline plan

1. The attack was to be made by a combined military and naval force, air support being provided by Fleet Air Arm machines operating from aircraft carriers :—

The phases of the attack were to be as follows :—

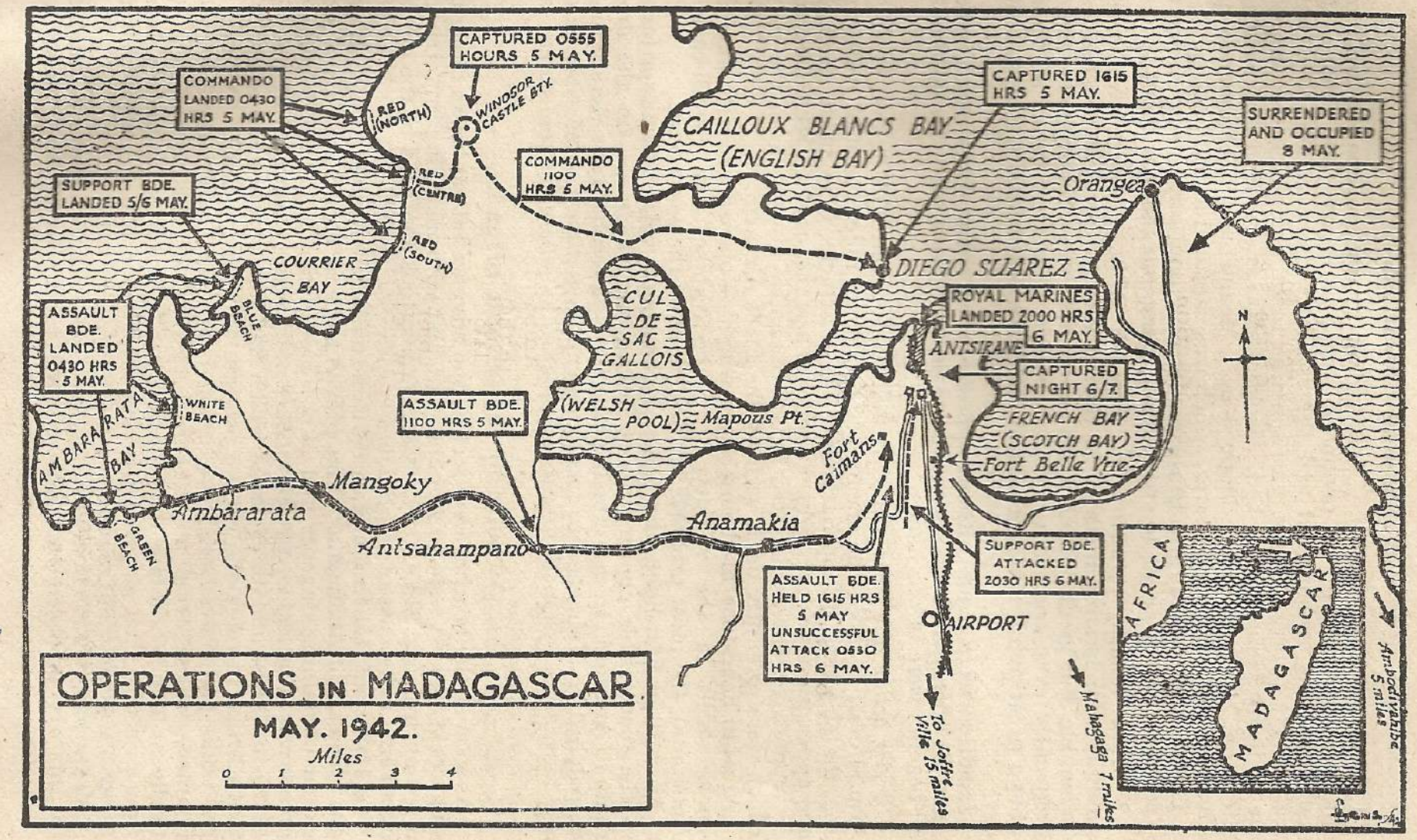
i. The assault brigade to land in Ambararata Bay at three beaches, Green, White, and Blue, secure these beaches, and then advance and capture Antsirane, which lay about 21 miles by road to the east.

ii. A commando and one infantry company from the assault brigade to land at Red beach, silence two coast defence batteries reported in that area, and then advance east to secure Andrakaka peninsula, particularly Diego Suarez. (This village is separated from Antsirane by a strip of water about 1,200 yards across.)

iii. The support brigade and, if necessary, a further force, as soon as the assault brigade and the commando were ashore, to land on the best of Green, White, or Blue beaches, and to come into action to complete the capture of Antsirane and Orangea peninsula. On the latter stood coast defence batteries covering the narrow entrance to the harbour.

iv. Concurrently with the initial landings, bombing attacks by aircraft of the Fleet Air Arm on certain strategic points, in particular Antsirane aerodrome.

v. A naval diversion to be made on the east coast of the island.


CAPTURED 0555 HOURS 5 MAY.
COMMANDO LANDED 0430 HRS 5 MAY.
RED (NORTH)
WINDSOR CASTLE BTY.
RED (CENTRE)
COMMANDO 1100 HRS 5 MAY.
CAILLOUX BLANCS BAY (ENGLISH BAY)
CAPTURED 1615 HRS 5 MAY.
SURRENDERED AND OCCUPIED 8 MAY.
Orangea
SUPPORT BDE. LANDED 5/6 MAY.
RED (SOUTH)
COURRIER BAY
DIEGO SUAREZ
ROYAL MARINES LANDED 2000 HRS 6 MAY.
ASSAULT BDE. LANDED 0430 HRS 5 MAY.
BLUE BEACH
CUL DE SAC GALLOIS
(WELSH POOL)
Mapous Pt.
ANTSIRANE
CAPTURED NIGHT 6/7.
FRENCH BAY (SCOTCH BAY)
Fort Belle Vue
WHITE BEACH
AMBARARATA BAY
ASSAULT BDE. 1100 HRS 5 MAY.
Fort Caimans
Mangoky
Ambararata
GREEN BEACH
Anamakia
Antsahampano
SUPPORT BDE. ATTACKED 2030 HRS 6 MAY.
ASSAULT BDE. HELD 1615 HRS 5 MAY UNSUCCESSFUL ATTACK 0530 HRS 6 MAY.
AIRPORT
To Joffre's Ville 15 miles
Majunga 7 miles
AFRICA
MADAGASCAR
Ambodivahibe 5 miles
OPERATIONS IN MADAGASCAR
MAY. 1942.
Miles
0 1 2 3 4

3. Landing operations

1. *Courrier Bay*—5 May.—The landing by the commando with one infantry company under command took place at 0430 hours. No opposition was encountered and the coastal battery at Windsor Castle was quickly overrun. The garrison was taken completely by surprise, the majority being still in bed. Isolated M.G. posts held out until the afternoon, but were finally mopped up. Meanwhile the commando had advanced towards Diego Suarez, which was captured at 1615 hours.

This part of the plan was thus completed without any serious difficulty. A search for small boats to cross to Antsirane was made without success.

2. *Main landing—Ambararata Bay.—5 May.*—On the whole, the conditions for landing infantry at Green, White, and Blue beaches were favourable, but great difficulty was experienced in getting vehicles ashore. Frequently even tracked vehicles succeeded only after being immersed. Thus a great number of mechanical breakdowns occurred during the first day.

Landings were made without opposition, except at Blue beach, where some fifty Senegalese troops were surprised and captured. By 0630 hours all beaches were in our hands.

3. *Air action and diversion.*—At first light, about 0530 hours, Fleet Air Arm aircraft bombed the enemy aerodrome six miles south of Antsirane, and the shipping in the harbour. These attacks were most successful and appear to have deprived the enemy of any means of air reconnaissance or support, except for isolated M.G. attacks by aircraft from the south, which were promptly dealt with by the Fleet Air Arm.

At 0440 hours one of the escorting warships opened fire with star and smoke shells in the vicinity of Ambodivahibe Bay (south-east of Antsirane), the most probable landing place on the east coast.

Aircraft, at first light, also dropped parachutes with dummies attached in the inaccessible country about Mahagaga, which lies on the direct route to Antsirane from Ambodivahibe Bay. French troops were actually despatched to Mahagaga to meet this supposed threat some time before any movement was made towards Ambararata, where the real threat lay.

4. Advance of the assault brigade

As soon as the beaches were secure, the advance inland began along the single east-to-west road to Antsirane, at first with marching infantry and a few cyclists and M.Cs. only. Carriers overtook the head of the column about five miles east of the beaches.

At 1100 hours the leading carriers came under fire from some high ground one mile east of Anamakia. This proved to be an enemy position of some extent containing dugouts and M.G. emplacements. At 1115 hours an attack was launched by two companies of infantry, supported by a section of 3·7-in. hows. and three tanks which had also reached the area. The tanks broke through the enemy position and firing ceased. As soon as the tanks had moved on, firing again broke out against the advancing infantry, necessitating an organized clearing of the area. This was finally accomplished late in the afternoon. It was subsequently learnt from prisoners that so great was the surprise we had achieved that the position was only half manned.

Meanwhile, at 1515 hours, the advance was continued towards Antsirane by infantry preceded by tanks. These tanks moved well ahead and

successfully destroyed at least two lorry loads of enemy reinforcements moving towards the Anamakia position. Farther on, they were surprised by heavy fire from concealed 75-mm. guns at short range. The guns were protected by a tank trap which the tanks were unable to cross. This was subsequently found to be the enemy main position. The tanks were forced to wait for infantry support before they could get on.

When darkness fell at 1830 hours, the leading battalion of the assault brigade was in contact with the main enemy position on a wide front and under heavy fire.

Some casualties to both tanks and infantry were sustained, and it became clear that this position could be taken only by a staged brigade attack supported by artillery.

The enemy main position faced south across the narrowest portion of the isthmus of Antsirane, based on two old, but solid and well-concealed, forts, Fort Caimans on the west, Fort Bellevue on the east. These forts were joined by a trench system 2,000 yards long, in front of which lay an anti-tank ditch. On each flank steep scrub-covered slopes led down to mangrove swamps bordering the sea. The three roads leading to Antsirane from the south were covered by concrete pillboxes containing 75-mm. guns and M.Gs.

After a reconnaissance of the ground, it was decided to attack at dawn the next morning, and orders were given to battalion commanders of the assault brigade at 2300 hours. Throughout the night battalions formed individual perimeters. Owing to the nature of the country, which was mostly thick jungle, the enemy kept up an irritating and effective fire from snipers.

5. Progress of landing

Unfortunately by 0800 hours, Blue beach was the only practicable landing place, and all craft from the other two beaches were directed there. Enemy mines kept ships from approaching very near the shore. In addition a strong wind arose during the morning, which slowed up the flat-bowed landing craft and drenched the occupants with spray. All these factors contributed towards retarding the rate of landing, and the amount of transport and carriers for the advance inland was considerably reduced.

All personnel of the assault brigade were ashore by 1100 hours, but the landing of their vehicles was not completed until midnight.

Landing of the support brigade began at 1115 hours and continued without a halt, except between dark (1830 hours) and moonrise (2230 hours). This halt was necessary, not only to prevent damage to the landing craft but also to rest their crews.

To increase the rate of landing, an attempt was made to beach one of the ships containing guns and vehicles at Courrier Bay. Guns and quads of one battery were manhandled ashore, the men working at times up to their necks in water. It was hoped to find a way across from Courrier Bay to the main line of advance, but this attempt proved impossible, and the battery was ordered into action on Andrakaka peninsula, from where it put down harassing fire on the Antsirane defences.

The support brigade was ordered to advance towards Antsirane as quickly as possible to assist the assault brigade, and companies moved inland as soon as they got ashore and formed up.

6. Dawn attack on enemy main position, 6 May

The attack was made on a three-battalion front. The right battalion moved forward in the dark, succeeded in crossing the extremely difficult country lying between Fort Bellevue and the sea, and outflanked the enemy position, taking several hundred prisoners. The difficult nature of the ground made it impossible to get a serviceable No. 18 wireless set forward with these troops, so the extent of their success was not known. Several liaison officers were sent to discover the position on this flank but failed to get through, since the French had closed the gap after the initial penetration. Brigade H.Q. therefore did not know of this success and were thus unable to exploit it, and, in fact, thought that the majority of this battalion were either casualties or prisoners. Had the position been known and the reserve battalion thrown in through the gap, Antsirane might well have been captured that morning.

The remaining two battalions, in the centre and on the left flank, attacked frontally at first light and made ground initially, but on trying to cross the exposed ground immediately in front of the enemy position, they were held up by heavy fire from 75-mm. guns and M.Gs. Casualties mounted and they were forced to withdraw. Artillery observation soon became extremely difficult, since shelling set fire to the bush, adding considerably to the attackers' difficulties.

It was realized that without considerably more artillery support than the four 3·7-in. hows. and two 25-prs. then available, further advance was impossible. Owing to the excellent siting and concealment of the enemy gun positions and the difficulties of observation, the artillery support during this attack was ineffective except from the point of view of morale.

The support brigade was due in the forward area by 1800 hours, and it was decided to delay any further assault until its arrival.

It was finally decided to attack that night, using the support brigade, who would be followed up by the assault brigade. Support by all available artillery would be given and the attack would be preceded by heavy air bombardment. Zero hour was fixed for 2030 hours. Artillery and air bombardment was to reach a maximum at 2015 hours. For the actual attack, artillery was to remain silent unless there were calls for defensive fire.

As a diversion, a company of Royal Marines was to be landed from a destroyer at Antsirane pier, to make a direct assault on the town from the rear.

During the remainder of the day the enemy positions were continually shelled by our artillery and by destroyers, while aircraft carried out incessant bombing and machine gun attacks.

7. Night attack by support brigade, 6/7 May

Owing to the late arrival of many of the troops of this brigade in the forward area, and to the difficulties of observation, very little effective reconnaissance had been possible.

At zero hour, 2030 hours, two battalions of the support brigade left the start line, which was approximately 1,200-1,400 yards from the enemy main position. They advanced astride the most westerly road leading to Antsirane on a front of about 600 yards. By good fortune they passed between the two main forts without being aware of it, as the positions of the forts were not known. Considerable fire broke out when these

battalions crossed the tank ditch and trench system, but the advance continued steadily. The objective was reached, this being the far side of the native village, which lay about 3,000 yards from the original start line, and some 1,800 yards beyond the enemy main position. Success signals were fired at 2300 hours, and immediately the remaining two battalions of the brigade (one additional battalion having been placed under command for the attack) were ordered forward. These two battalions pushed right through to the main town of Antsirane with little or no opposition, and reached the main harbour.

The assault brigade, which was in reserve for this attack, and the remaining tanks, were then pushed forward to assist in mopping up the town.

The Residency was entered at 0100 hours, and arrangements for taking over the town began at once.

3. Assault by marine detachment

The destroyer carrying the R.M. detachment came under fire, as it entered the harbour at 2000 hours, from the shore batteries guarding the entrance. It replied with all available weapons.

The Marines disembarked under fire from the town and dockyard, and quickly advanced into the town. The artillery headquarters were occupied, and fires started in the dockyard area. Continuing the advance the naval barracks were captured after some resistance, many prisoners being taken. Contact was then made with the leading elements of the support brigade, which by this time had entered the town from the south. In spite of the precarious nature of their task, the Marines suffered only one casualty.

This attack added greatly to the ease with which the final occupation was carried out, and to a large extent prevented extensive street fighting which would otherwise inevitably have resulted, in which casualties might well have been very heavy and the town severely damaged.

9. Completion of the operation, 7 May

All resistance in the town ceased during the night 6/7 May, but the two forts in the main position south of the town continued to hold out until 1400 hours, 7 May, when they surrendered.

Arrangements for an immediate attack on Orangea peninsula by the support brigade were made, but these proved unnecessary, as negotiations for its surrender were completed during the afternoon. Orangea peninsula was occupied 8 May.

Our total casualties for the operation were less than 500, of which less than one-sixth were killed.

PART II.—CONCLUSIONS

Although the operations were on a small scale and lasted only a few days, several points were brought out which are of value. Allowances must, however, be made for the following facts. The operation was conducted against an enemy whose air power was weak, and who lacked armoured troops for counter-attacks. The enemy fought with determination, but probably their training, equipment, and armament were below first-class standards. Finally, the beaches, except Blue beach, were undefended, and beach obstacles were non-existent.

1. Preliminary training

A rehearsal of the operation had taken place previously, involving the landing of troops and transport on difficult beaches, from which a rapid advance inland was required. This brought out two very valuable lessons :—

i. The extreme importance of closely scrutinizing the landing tables, so that essential vehicles had a high priority in landing. These should have a good cross-country performance, since in the earlier stages roads might not be available.

ii. All units to be prepared to make long advances with little transport, to allow for the initial time lag between the landing of personnel and their vehicles.

2. Surprise

This is undoubtedly the most important factor in any operation whether combined or not, and every possible means of ensuring it should be used. The Madagascar operations illustrate its value. Without surprise, landings would have been contested, the battery at Windsor Castle would not have been caught asleep, nor the Anamakia position only half manned; and our casualties would inevitably have been considerably higher.

The following are examples and, although shown under sub-headings, are all factors which contribute to the one vital factor—SURPRISE :—

i. *Security.*—In an operation of this nature, there is an unavoidable time lag between the preparation of the plan, the collection and despatch of the force, and the actual assault. The fact that the French were obviously completely unprepared for this attack speaks well for our security measures.

ii. *The unexpected.*—It was learnt from captured instructions that the French considered any landing at Courrier and Ambararata bays to be impossible at night. The risk was considerable, because of difficult approaches and numerous mines. However, the risk was taken, and the assault flotilla left for the beaches between 0200 and 0300 hours, preceded by corvettes and minesweepers. This move undoubtedly contributed more than anything else to the success of the operation, and the skill and seamanship of the Navy in undertaking this part of the operation cannot be praised too highly.

iii. *Diversions.*—Two excellent diversions were created. First, the bombardment by naval forces on the East coast of Orangea peninsula, the most obvious place for an attack, followed by the dropping of dummies by parachute from aircraft at Mahagaga on the direct route from the expected landing place to Antsirane. That this achieved its purpose is apparent from the fact that enemy troops were actually despatched to this area, some time before the direction of the real assault was discovered.

The assault by the R.M. detachment on Antsirane on the night 6/7 May is another example. This attack, coincident with the main frontal attack from the south, had a considerable effect on the morale of the enemy, and was definitely a factor in the success of the final attack.

iv. *The unorthodox.*—Again a contributory factor, and one which frequently constitutes success.

(*a*) *Landing operations.*—The usual practice is for leading formations to secure the beaches and covering positions. The advance is then continued by later formations which land and form up behind this screen. This procedure is apt to forfeit any initial surprise. In the present operation, the beaches were quickly secured and the advance inland began almost immediately, though troops were left to guard the beaches from enemy attacks, which could easily have been made from the ample cover in the vicinity of all beaches.

Even in an opposed landing, greater protection may, on occasions, be given to beaches if the initial formations exploit deeply into enemy territory, rather than forming a covering position near the beach, on which troops will necessarily be "thin on the ground." This form of attack has the advantage of spreading the threat, rather than keeping it confined to a definite locality.

(*b*) *The night attack.*—The standard attack at dawn failed, but the unconventional night attack succeeded. Although more difficult to co-ordinate and requiring a higher standard from the troops involved, the night attack is likely to be successful, both from the fact that it may well be unexpected, and also that comparatively few nations fight really well at night. Enemy fire is bound to be on fixed lines, which is never so effective.

The importance of training all troops to operate by night cannot be stressed too highly.

3. Co-operation

This war, more than any other, has shown the complete dependence of one service on another, one arm on another. In combined operations particularly, success hangs or falls on perfect co-operation.

Several instances of the excellent understanding that existed both between services, and between arms of services, are found in this operation. Most of them are extremely obvious, but on account of their constant recurrence they are worthy of mention.

i. *Co-operation between services.*—Throughout the operations the closest co-operation was maintained between the naval and military forces. Destroyers combined with the artillery in shelling Antsirane defences; the diversion caused by the landing of the Royal Marines played a vital part in the success of the final attack; and the preliminary bombardment of the town, which preceded the assault by planes from the aircraft carriers, had a marked effect on the enemy's morale.

ii. *Co-operation between tanks and infantry.*—This was illustrated very plainly when our tanks attacked enemy gun positions protected by a tank trap. The tanks were unable to get at the enemy guns, and had to wait for the infantry to come up and deal with them before their advance could be resumed. The infantry were close behind so that no undue delay was caused. An interesting feature of the Anamakia attack was the fact that, when the tanks made their break-through, the enemy fire ceased, but broke out again as soon as the infantry moved forward. The advantage of the supporting infantry being close behind the tanks was thus again demonstrated, the additional fire support of the tanks and their effect on

the morale of the supporting infantry outweighing the disadvantage of being caught in the fire directed primarily against the tanks.

iii. *Artillery and infantry.*—Owing to landing difficulties, the bulk of the artillery was not in action until the afternoon of 6 May. Thus the daylight attack on Antsirane had to be launched with inadequate support. The infantry, confronted by M.G. and 75-mm. gun emplacements, were held up, and the attack failed.

4. Physical fitness

The importance of troops being able to operate for periods away from their transport has been shown particularly in the operations in East Africa, Malaya, and Burma. Madagascar is another example, though the period was much shorter.

When the assault brigade reached the enemy's main position, about 1700 hours 5 May, they had advanced over 18 miles in tropical heat along a bad and very dusty road. The troops had been actively employed since 0130 hours, when they manned the landing craft. Marching infantry had carried all their weapons, and dragged their ammunition and stores with them in hand carts. Some of the later units to land were still marching along the road and continued to do so all the following night. For the last part of the approach the bush and long grass was burning, having been set on fire by our own and enemy shell fire. These troops, with little rest, put in an attack the following morning.

The support brigade, after marching all day (6 May), put in an attack that night. In both attacks the dash and determination of the infantry, tired as they were, is an indication of the standard of physical fitness of the troops engaged.

5. Tactical aspects

Certain tactical lessons were brought out.

i. *Infiltration.*—The outflanking movement of the right hand battalion in the dawn attack, 6 May, was most successful and only lack of communications prevented it from being decisive. Having worked their way round the enemy flank, they got behind the enemy main position, harassing enemy artillery, and M.G. positions. Heavy enemy casualties resulted, and the effect on enemy morale was considerable. Exploitation of a gap so caused is essential for success.

ii. *Forward reconnaissance.*—As soon as tanks arrived at the head of the column, they were pushed ahead in a combined reconnaissance and protective role. The danger of this practice, in close country, which does not allow freedom of manœuvre to armoured vehicles, must be appreciated. In fact, the leading tanks bumped the main enemy position at a point where their manœuvre was very confined, with the result that the majority were knocked out almost immediately. Had M.Cs. or carriers been used for this purpose, they would have shared the same fate, but their loss would not have been so vital.

iii. *Aerial reconnaissance.*—Air photographs had been taken of the area over which the main attack was to be launched. Unfortunately, this reconnaissance did not cover the final approach, with the result that the existence of the main position was not known. The importance of reconnaissance, wherever possible, of the whole area of operations is clear.

iv. *Communications.*—As has been already mentioned, the breakdown in communications resulted in the defeat of the day attack on the main

Antsirane position. A secondary means of communication, for use in the event of wireless being impracticable or breaking down, is essential, whether line, visual, light signals, or some other pre-arranged means.

6. Artillery

1. *Observation.*—The difficulty of observation in jungle country has frequently arisen, especially in Malaya and Burma. In these circumstances, either infantry will have to rely on their own mortar fire, as the Japanese have done, or artillery will have to be brought right forward and used as infantry guns, frequently taking on enemy emplacements over open sights. In any event, the decentralization of artillery to small infantry groups will probably be essential.

2. *Use of smoke.*—Smoke dissipates much more slowly in this type of country, and is likely to be widely used to cover an infantry attack.

3. *Landing of guns.*—The difficulties which may be met with in landing guns is shown by the conditions which prevailed at the landing at Courrier Bay of a 25-pr. battery. Gunners, working literally up to their necks in water, got their guns ashore, and manhandled them up steep, uneven slopes. Physical fitness and training in this type of work are of the utmost importance.

7. Engineers

R.E. personnel are essential in operations of this nature, and detachments must move well towards the head of the advance. As it happened, no demolitions were encountered, but it was later found that a demolition system had been prepared, involving the destruction of five bridges along the main axis of approach. Only the surprise achieved by our advance prevented the plan being put into execution.

8. General

1. *Weight on the man.*—The essence of this type of operation is quickness of action and mobility, for both of which troops must carry as little as possible. The weight carried on the man was reduced as far as possible, but even so the average load per man was 45-50 lb. Special care is needed beforehand for each particular operation to ensure that the load carried on the man is an absolute minimum.

2. *Driving and maintenance.*—Where extra vehicles mean extra shipping and longer landing times, the number of vehicles used for these operations is naturally reduced to the minimum. Thus every vehicle is precious, and the highest standard of driving and maintenance is required to ensure that every vehicle remains in action.

Damage by immersion is often unavoidable, but if waterproofing is carried out effectively, little ill effect should result. Maintenance is necessary at every halt, to minimize the effects of sea water and to ensure that everything is in perfect order.

3. *Carriers.*—Heat generated in carriers in the tropics during daylight makes the operating of wireless sets almost unbearable to the operator. Frequent reliefs are necessary.

4. *Mess tin ration.*—All fighting troops were equipped with this form of ration. For 48 hours it was found to be more than adequate. If necessary it would be quite possible to exist with this ration for a further 24 hours.

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